

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

SITE READINESS	C1
EQUIPMENT LAYOUT	A1
(Equipment locations, heat loads, component weights, environmental specs)	
STRUCTURAL LAYOUT	S1
(Structural support/mounting locations for floor/wall/ceiling, wall support elevations)	
STRUCTURAL DETAILS	S2
(Floor and Ceiling loading information)	
ELECTRICAL LAYOUT	E1
(Contractor supplied wiring, interconnect methods, junction point locations and descriptions)	
ELECTRICAL SPECIFICATIONS	E2
(Maximum wiring run lengths, interconnect diagram, system power specifications)	
ELECTRICAL DETAILS	E3
EQUIPMENT DETAILS	D1

These drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

\* REQUIRED REFERENCE \*

Proteus XRA  
Wireless DR Imaging Option  
Pre Installation Manual  
2260326–100, 5397208–8EN

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.

Pre Installation documents for GE Healthcare products can be accessed on the web at:

www.gehealthcare.com/siteplanning

GE Healthcare



RAD Site Planning



imagination at work

Customer Site Readiness Requirements

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation Project Manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation Project Manager can supply a reference list of rigging contractors.
- New construction requires the following; 1. Secure area for equipment, 2. Power for drills and other test equipment, 3. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19					
Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422752					
GEHC Global Order #: _____		Customer: _____			
GEHC PMI: _____		FE / Installer: _____			
The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.					
		Inspection Date:			
GEHC Minimum Requirements		Storage ready?	PIM is ready?	FE is ready?	Comments
					If "N", enter comments or action plan
1	<b>MR Magnet Delivery Requirements:</b> Ensure cryogen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PIM) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.				
2	<b>MR RF Screen Room Requirements:</b> RF Screen Room is tested with copy of Test Report, emailed to 56AdminCOE@ge.com, that it is compliant with GEHC specifications. Dock Bolt and magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors				
3	<b>State Regulatory Requirements:</b> Facility registration number provided for states of IL, KY, HI, RI, SC, TX, X-ray shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO & WA.				
4	<b>Site Drawing Requirements:</b> Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.				
5	<b>Surface Penetration Requirements:</b> Customer/Contractor scheduled to provide required drilling or cutting into floors, ceilings, and walls; OR surface penetration permit available and posted in the room when GEHC will perform the work.				
6	<b>Pre-Delivery Route Requirements:</b> The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).				
7	<b>Finished Room Requirements:</b> Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding, doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PIM requirements for storage.				
8	<b>Electrical Requirements:</b> Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and lead-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.				
9	<b>HVAC Requirements:</b> The HVAC/Chilled Water systems designed to maintain the environment per spec/PIM is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.				
10	<b>Flooring Requirements:</b> Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.				
11	<b>Ceiling Requirements:</b> Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PMI discretion.				
12	<b>Staging Requirements:</b> Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.				
13	<b>Network Connectivity:</b> Hardware for network connectivity(network drop) is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.				
14	<b>Medical Gases Requirements:</b> Systems (hard piped or portable) in place to allow testing and calibration of equipment (anesthesia), including ventilation.				

This drawing is based on Sketch No.: Jessie Brown VA Rad room rev2 PIM R18, R1

GE Healthcare

Healthcare Project Implementation – Design Center

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SHEET TITLE: SITE READINESS

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS. ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS, IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM TO THE ACTUAL CONSTRUCTION. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ROOM NO. 1383

JESSE BROWN

VA MEDICAL CENTER

CHICAGO, ILLINOIS

PROJECT	REVISION
142821	02
DATE:	03.Sep.14
DRAWN BY:	RET
CHECKED BY:	JDR
GON NO:	4185846
GON DT:	27.Aug.14

REVISION HISTORY:

1

RET – 17.Feb.15

CHECKED BY: REK

LLM – 27.Feb.15

CHECKED BY: REK

SHEET

C1



GE EQUIPMENT LISTING							EQUIPMENT CROSS REFERENCE CHART	
EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER CON 4185846 DATED 27.Aug.14							P = PREAPPROVAL C = CALCULATIONS/ SEISMIC B0556C PENDING APPROVAL STATUS S = SPECIFICATIONS ONLY	
NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.								
ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"						
		ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	
①	1	CABLE DRAPE RAIL.	110 lbs			B20060		-
②	1	XT RADIOGRAPHIC SUSPENSION WITH INBOARD MOUNTING.	628 lbs	501 btu	B2004	B20041	XTS1	C
③	2	LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	68 lbs			---		C
④	1	PROTEUS OPERATORS CONSOLE	6 lbs	180 btu	B0556D B0556E	---	OC	S
⑤	1	TETHER INTERFACE BOX	15 lbs	10 btu	B8126	-	TIB	-
⑥	1	DR IMAGING CABINET	37 lbs	477 btu	B8128	-	WDR1	S
⑦	1	DR IMAGING CONSOLE	28 lbs	525 btu		-	PC	-
⑧	1	DONGLE	4 lbs		B8137	-	D	-
⑨	1	DETECTOR BIN	33 lbs		B8127	-		-
⑩	1	PROTEUS TABLE	440 lbs	1501 btu	B0556A	B0556B	PT	S
⑪	1	PROTEUS GENERATOR	330 lbs	2539 btu	B0556	---	XG	S
⑫	1	PROTEUS WALL STAND WITH KNEE SPACER	264 lbs		B0556H	S97	K	S

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Floor plan of RAD EXAM ROOM 1383 and CONTROL ROOM. The plan shows the layout of the room with various equipment and dimensions. The RAD EXAM ROOM 1383 is the main area, and the CONTROL ROOM is adjacent to it. Dimensions are provided for the overall room and various sections. Equipment is numbered 1 through 12, and other components are numbered 2 through 92. The plan includes a large rectangular area for the examination table, a control console, and various storage and utility areas.

TYPICAL WALL SUPPORT ELEVATIONS

S127

(FINISHED CEILING)

NO WALL BACKING REQUIRED

18.0"

[457mm]

(FINISHED FLOOR)

TIB ELEVATION  
(NOT TO SCALE)

S128

(FINISHED CEILING)

NO WALL BACKING REQUIRED

12.0"

[305mm]

(FINISHED FLOOR)

DONGLE ELEVATION  
(NOT TO SCALE)

S129

(FINISHED CEILING)

SUPPORT CL

13.0"

[329mm]

23.0"

[585mm]

(FINISHED FLOOR)

SUPPORT FOR BIN  
(NOT TO SCALE)

S97

(FINISHED CEILING)

90"

[2285mm]

(FINISHED FLOOR)

SUPPORT FOR WALL STAND  
(NOT TO SCALE)

SCALE: 1/4" = 1'-0"

STRUCTURAL LAYOUT

EXISTING CEILING HEIGHT = 9'-0"

1

2

3

4

8'-7"

5'-2"

9'-2"

1'-2" EXST

5'-10" EXST

2'-3" EXST

2'-2" EXST

2'-2" EXST

2'-2" EXST

2'-2" EXST

2'-2" EXST

2'-2" EXST

2'-9" EXST

4'-6"

2

RAD EXAM ROOM 1383

CONTROL ROOM

GE Project Manager: ERIC GIERAS  
Telephone: 708-597-4432

THE GE HPS TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SIZING QUESTIONS AND CAN BE REACHED AT (877)-305-9677 OR MAIL TO: HPSupport@ge.com

STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	* EXISTING - REUSE IF ADEQUATE. UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CEILING SUPPORTED EQUIPMENT. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. LOCATE AS DIMENSIONED ON SITE SPECIFIC STRUCTURAL PLAN. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED.
2	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S129
3	FLOOR CONTACT AREA FOR TABLE
4	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S97, FOR WALL STAND. FLOOR CONTACT AREA FOR WALL STAND; SEE EQUIPMENT DETAIL FOR ANCHOR LOCATIONS.

STRUCTURAL NOTES

- ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1,58mm(1/16") DEFLECTION. CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- METHODS OF SUPPORT FOR THE STEELWORK THAT WILL PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE CONSTRUCTION SHOULD BE FAVORED. DO NOT USE CONCRETE OR MASONRY ANCHORS IN DIRECT TENSION.
- ALL UNITS THAT ARE WALL MOUNTED OR WALL SUPPORTED ARE TO BE PROVIDED WITH SUPPORTS WHERE NECESSARY. WALL SUPPORTS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER OR HIS CONTRACTORS. SEE PLAN AND DETAIL SHEETS FOR SUGGESTED LOCATIONS AND MOUNTING HOLE LOCATIONS.
- ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 2130mm (7'-0") HIGH.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") in 3050mm (10'-0")
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT DRAWINGS FOR GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL HARDWARE FOR "THROUGH THE FLOOR" ANCHORING AND/OR ANY BRACING UNDER ACCESS FLOORS. THIS CONTRACTOR MUST ALSO PROVIDE FLOOR DRILLING THAT CANNOT BE COMPLETED BECAUSE OF AN OBSTRUCTION ENCOUNTERED WHILE DRILLING BY THE GE INSTALLER SUCH AS REBAR ETC.
- IT IS THE CUSTOMER'S RESPONSIBILITY TO PERFORM ANY FLOOR OR WALL PENETRATIONS THAT MAY BE REQUIRED. THE CUSTOMER IS ALSO RESPONSIBLE FOR ENSURING THAT NO SUBSURFACE UTILITIES (E.G., ELECTRICAL OR ANY OTHER FORM OF WIRING, CONDUITS, PIPING, DUCT WORK OR STRUCTURAL SUPPORTS (I.E. POST TENSION CABLES OR REBAR)) WILL INTERFERE OR COME IN CONTACT WITH SUBSURFACE PENETRATION OPERATIONS (E.G. DRILLING AND INSTALLATION OF ANCHORS/SCREWS) PERFORMED DURING THE INSTALLATION PROCESS. TO ENSURE WORKER SAFETY, GE INSTALLERS WILL PERFORM SURFACE PENETRATION OPERATIONS ONLY AFTER THE CUSTOMER'S VALIDATION AND COMPLETION OF THE "GE SURFACE PENETRATION PERMIT"

GE Healthcare

Healthcare Project Implementation - Design Center  
Milwaukee, WI

SHEET TITLE: STRUCTURAL LAYOUT

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS. ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS, IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO THE ACTUAL CONSTRUCTION. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ROOM NO. 1383  
JESSE BROWN  
VA MEDICAL CENTER  
CHICAGO, ILLINOIS

PROJECT	REVISION
142821	02

DATE: 03.Sep.14

DRAWN BY: RET

CHECKED BY: JDR

GON NO: 4185846

GON DT: 27.Aug.14

REVISION HISTORY:

1 RET - 17.Feb.15

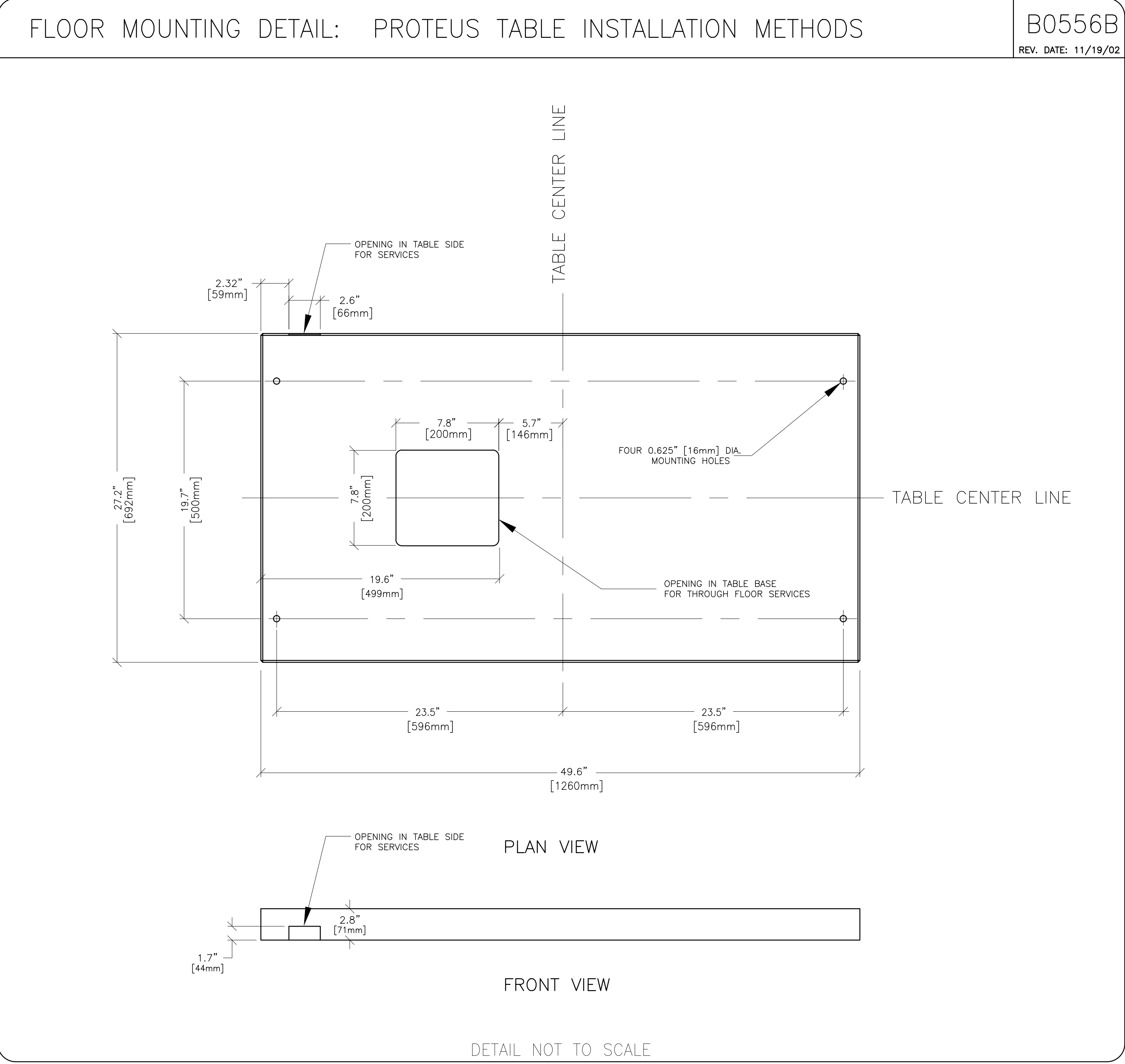
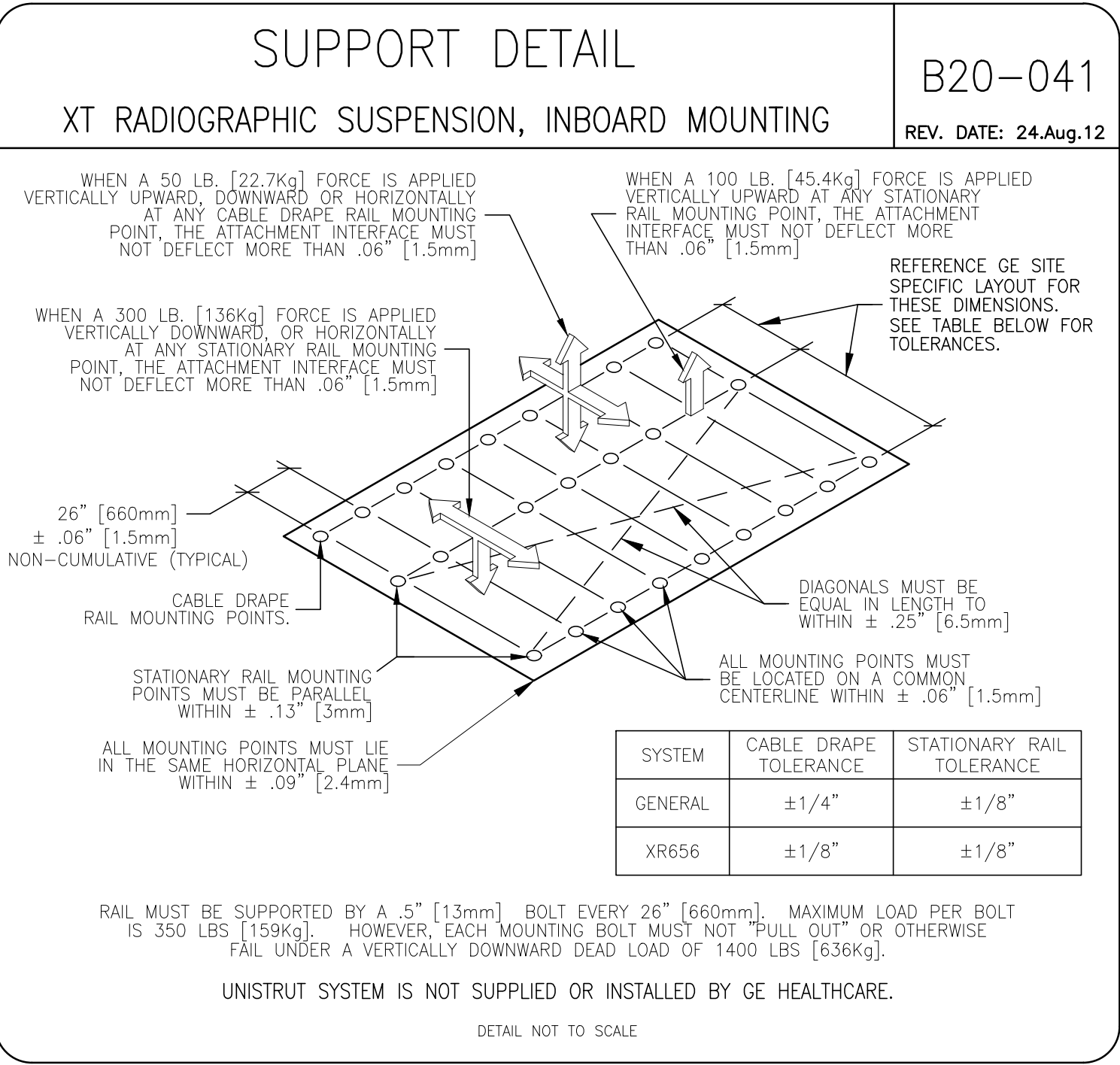
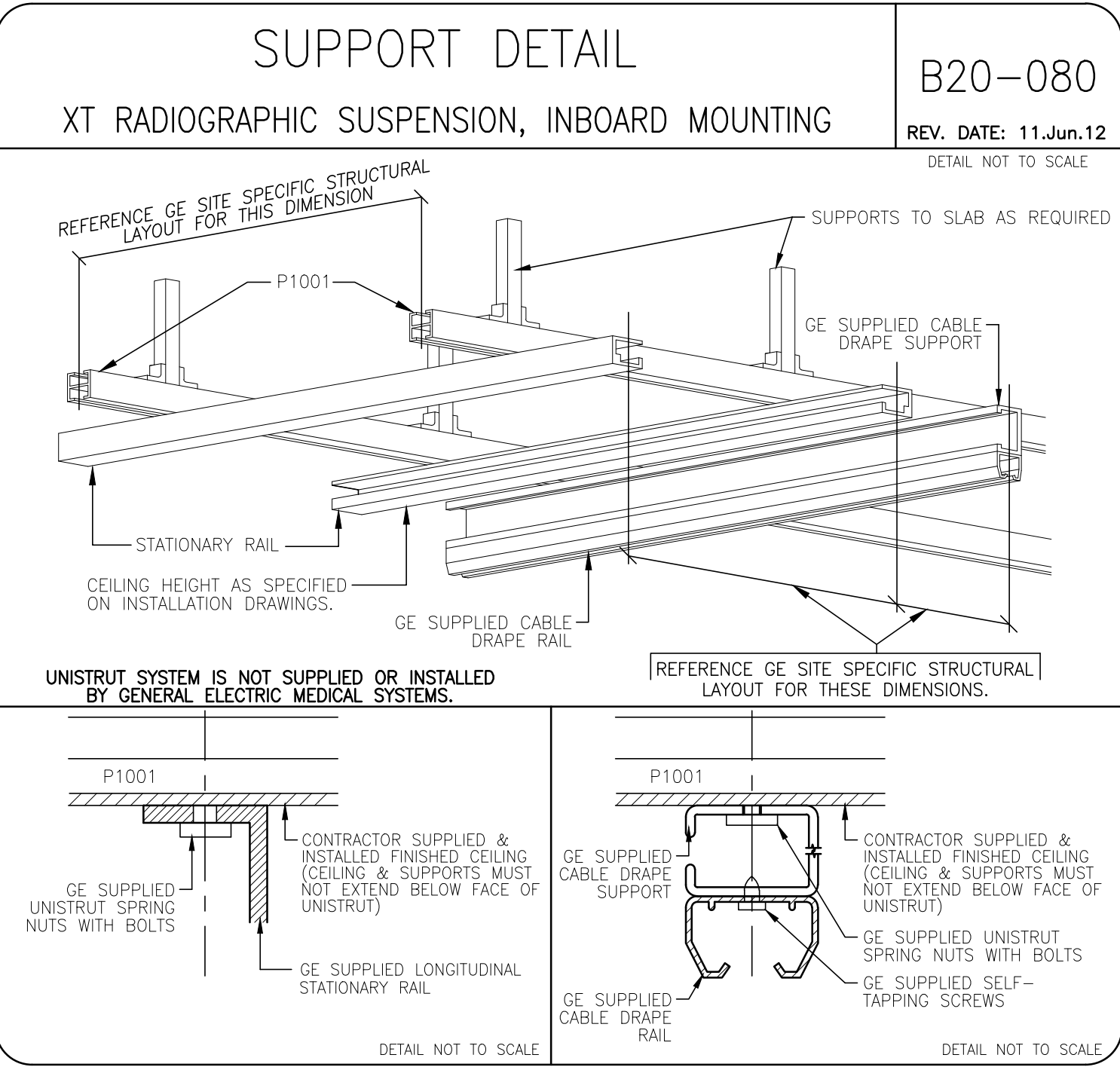
2 LLM - 27.Feb.15

CHECKED BY: REK

SHEET

S1

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED



GE Healthcare

Healthcare Project Implementation – Design Center

Midwaukee, Wisconsin

SHEET TITLE: STRUCTURAL DETAILS

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO PREVIOUSLY SUBMITTED PROJECT REQUIREMENTS. HOWEVER, THE USER OF THIS PLAN ASSUMES ALL CONSTRUCTION RISKS. GE HEALTHCARE SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ROOM NO. 1383

JESSE BROWN

VA MEDICAL CENTER

CHICAGO, ILLINOIS

PROJECT	REVISION
142821	02

DATE: 03.Sep.14

DRAWN BY: RET

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GON NO: 4185846

GON DT: 27.Aug.14

REVISION HISTORY:

1

RET – 17.Feb.15

CHECKED BY: REK

LLM – 27.Feb.15

CHECKED BY: REK

SHEET

S2

RQ – 150212

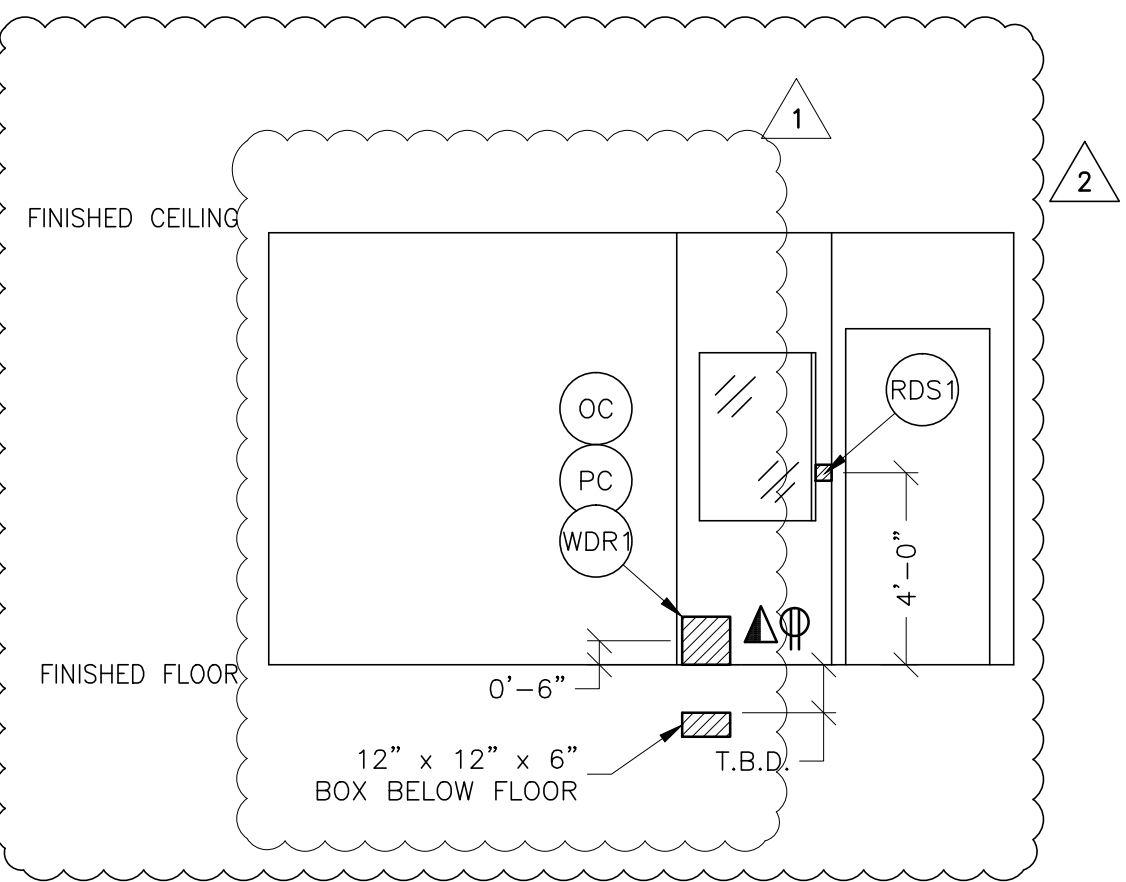
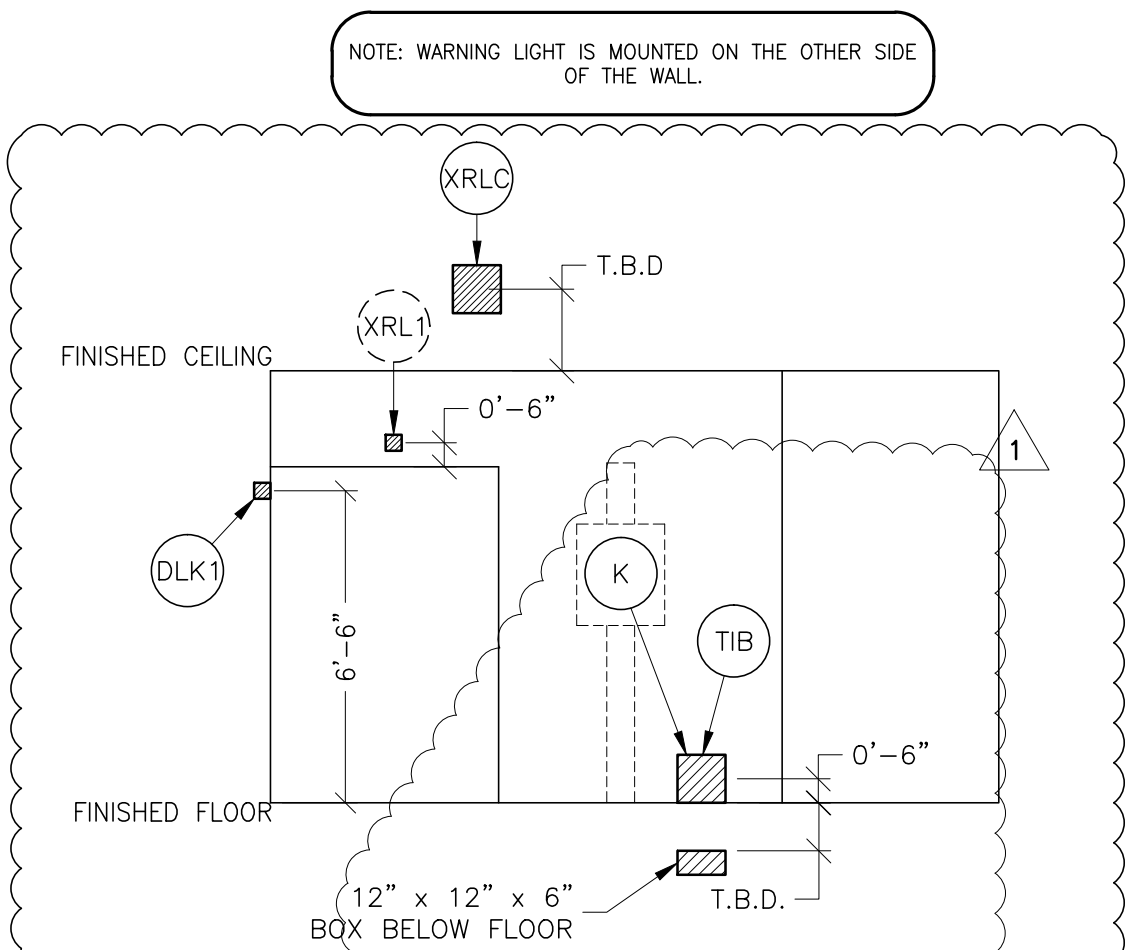
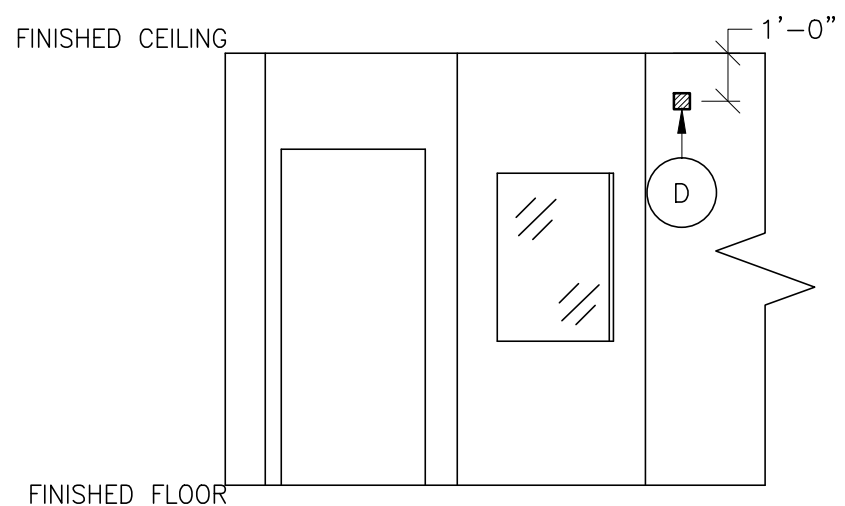
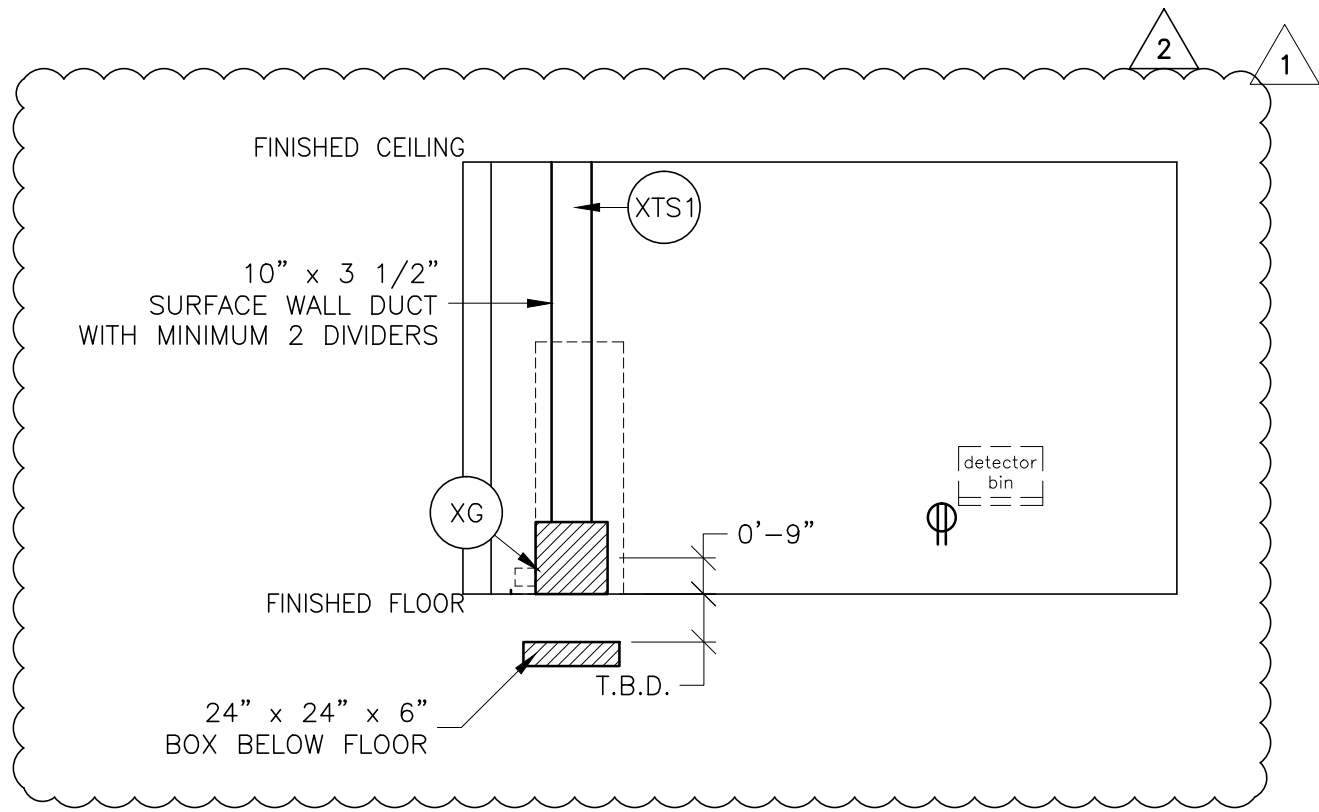
PIM R18, R1

This drawing is based on Sketch No.: Jessie Brown VA Red room rev2

SCALE: 1/4" = 1'-0"

ELECTRICAL PLAN

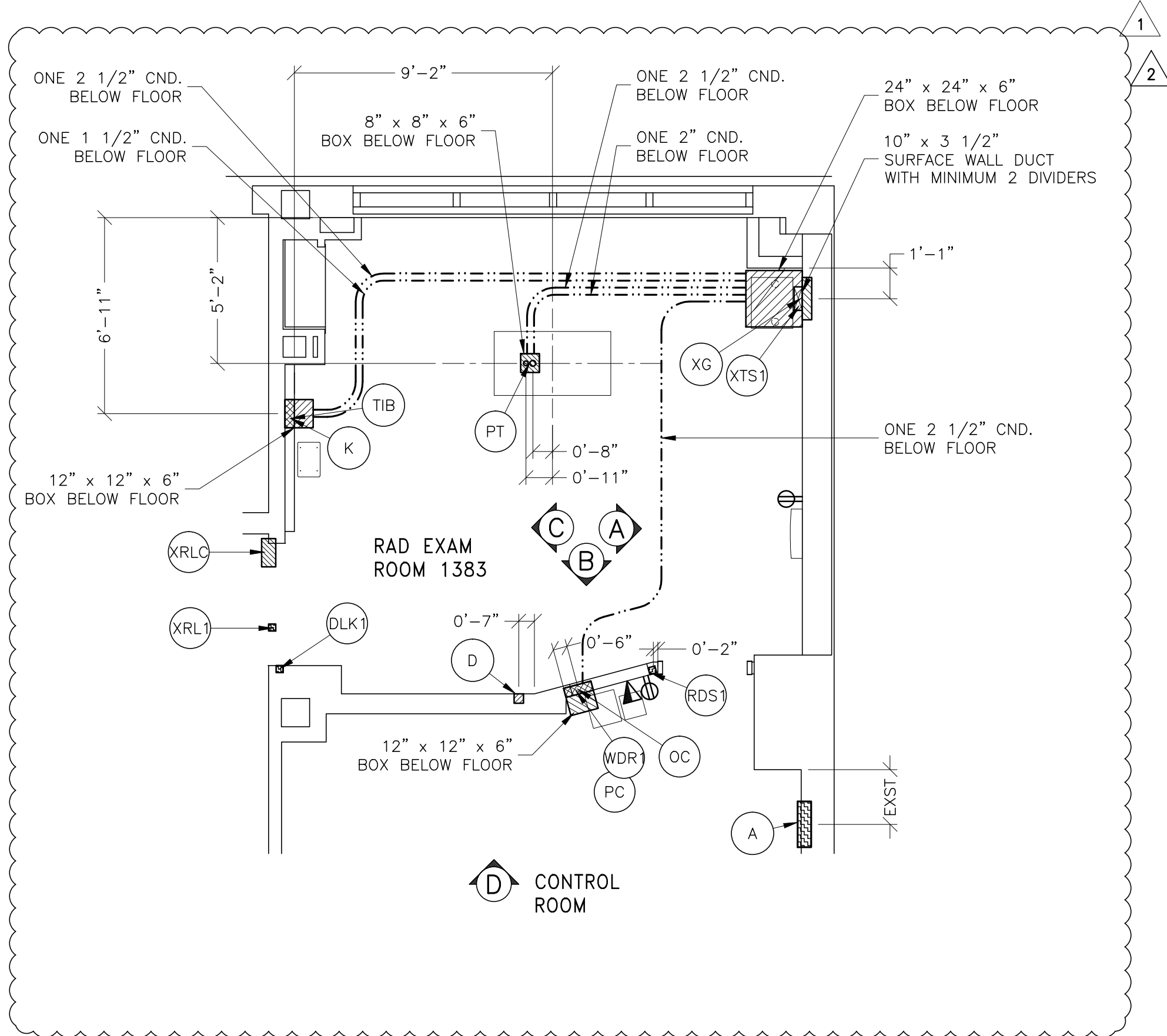
EXISTING CEILING HEIGHT = 9'-0"



### JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, CABLE TRAY, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMER'S ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
  - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
  - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
  - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
  - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMER'S CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATOR'S CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THIN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



### JUNCTION POINT DESCRIPTIONS

POINT		THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR		
DESCRIPTION	QTY.	HARDWARE	DETAIL NO., SHT. E3	
A MAIN DISCONNECT AVAILABLE FROM GEMSG, CALL 800-879-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	80-AMP CIRCUIT BREAKER PANEL GEMSG CAT. NO. E4502ST OR WITH AUTO RESTART FEATURE-E4502RP, ONE REMOTE EMERGENCY OFF (RDS1) PUSHBUTTON AND STAINLESS STEEL WALL PLATE STATION ARE WITH EACH MAIN DISCONNECT	ELEC-15	
D DONGLE	1	COVERPLATE 4 X 4 X 1/4 IN. BOX 1 1/2 IN. DIA. CHASE NIPPLE	ELEC-8	
DLK1 DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V) SINGLE GANG BOX		
K CASSETTE HOLDER	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 1 1/2 IN. DIA. CHASE NIPPLE 12 X 12 X 4 IN. BOX WITH DIVIDER	ELEC-79	
OC CONTROL CONSOLE	1	SAME BOX AS 'WDR1' COVERPLATE	ELEC-8	1
PC DR IMAGING CONSOLE	1	SAME ROUTING AS WDR1		
PT TABLE	2	SUITABLE BUSHING & LOCKNUT	ELEC-9	1
RDS1 EMERGENCY OFF	1	PROVIDE A SINGLE GANG, 8 1/2 IN. DEEP, FLUSH MTD. WALL BOX	ELEC-16	
TIB TETHER INTERFACE BOX	1	SAME BOX AS 'K' 1 1/2 IN. DIA. CHASE NIPPLE	ELEC-7	
WDR1 DR IMAGING CABINET	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 12 X 12 X 4 IN. BOX	ELEC-7	
XG GENERATOR	1	SPLIT COVERPLATE 1 1/2 IN. DIA. CHASE NIPPLE 1 1/2 IN. 90 DEGREE CONNECTOR 15 FT. LENGTH OF 1 1/2 IN. FLEXIBLE METAL CONDUIT 18 X 18 X 4 IN. BOX	ELEC-6	
XRL1 WARNING LIGHT	1	SINGLE GANG BOX 1 X-RAY ON INCANDESCENT LIGHT FIXTURE, 24V, 8 AMP OR LESS LOW VOLTAGE SOURCE, DO NOT USE FLUORESCENT FIXTURES		
XRLC WARNING LIGHT CONTROLLER AVAILABLE FROM GEMSG, CALL 800-879-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4502RL WARNING LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-72	
XTS1 X-RAY TUBE HANGER	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-6	

\* NOTE: THIS SYMBOL DENOTES AN EXISTING LINE SWITCH, LOAD CENTER, ELECTRICAL BOX AND/OR JUNCTION POINT CONNECTION. USE EXISTING ITEM(S) IF ADEQUATE FOR THIS INSTALLATION. IF EXISTING ITEMS ARE DEEMED INADEQUATE UPON FIELD INSPECTION CUSTOMER OR THEIR CONTRACTOR SHALL SUPPLY AND INSTALL THE RECOMMENDED ITEM(S) LISTED ABOVE.

### CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT, TAG AND TERMINATE ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
3 PHASE > A	REFER TO FEEDER TABLE
A > XG	2-ND. 14 BLACK, 1-ND. 14 GREEN
A > RDS1	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
XG > DLK1	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
XG > XRLC	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
XRLC > 1 PHASE	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN
XRL1 > XRLC	1-ND. 14 BLACK, 1-ND. 14 WHITE, 1-ND. 14 GREEN

### ADDITIONAL CONDUIT RUNS FOR PROTEUS XR/a (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)		REV DATE: 10/01/08
XRLC TO XRL1	ONE 1 1/2" CND.	
XRLC TO XG	ONE 1 1/2" CND.	
XRLC TO 120-V 1Ø POWER	CND. AS REQ'D	
A TO XG	ONE CND. AS REQ'D	
A TO RDS1	ONE 1 1/2" CND.	
A TO FEEDER	ONE CND. AS REQ'D	
DLK1 TO XG	ONE 1 1/2" CND.	

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

### CONDUITS BY CONTRACTOR REQUIRED FOR WIRELESS DR IMAGING SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

CONDUITS BY CONTRACTOR REQUIRED FOR WIRELESS DR IMAGING SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)		REV DATE: 02.Sep.14
WDR1 TO TIB	ONE 1 1/2" CND.	
WDR1/PC TO D	ONE 1 1/2" CND.	
WDR1 TO TIB	ONE 1" CND. (FLORIDA ONLY)	
WDR1 TO D	ONE 1" CND. (FLORIDA ONLY)	

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

### ELECTRICAL OUTLET LEGEND

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

Φ	DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE POWER
Δ	NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

GE Project Manager: ERIC GIERAS  
Telephone: 708-597-4432

THE GE HPH TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SIZING QUESTIONS AND CAN BE REACHED AT (877)-305-9677 OR MAIL TO: HPHTechnicalCOE@ge.com

SHEET TITLE: ELECTRICAL LAYOUT

MODALITY TYPE: PROTEUS XR/a

PROJECT TITLE: ROOM NO. 1383  
JESSE BROWN  
VA MEDICAL CENTER  
CHICAGO, ILLINOIS

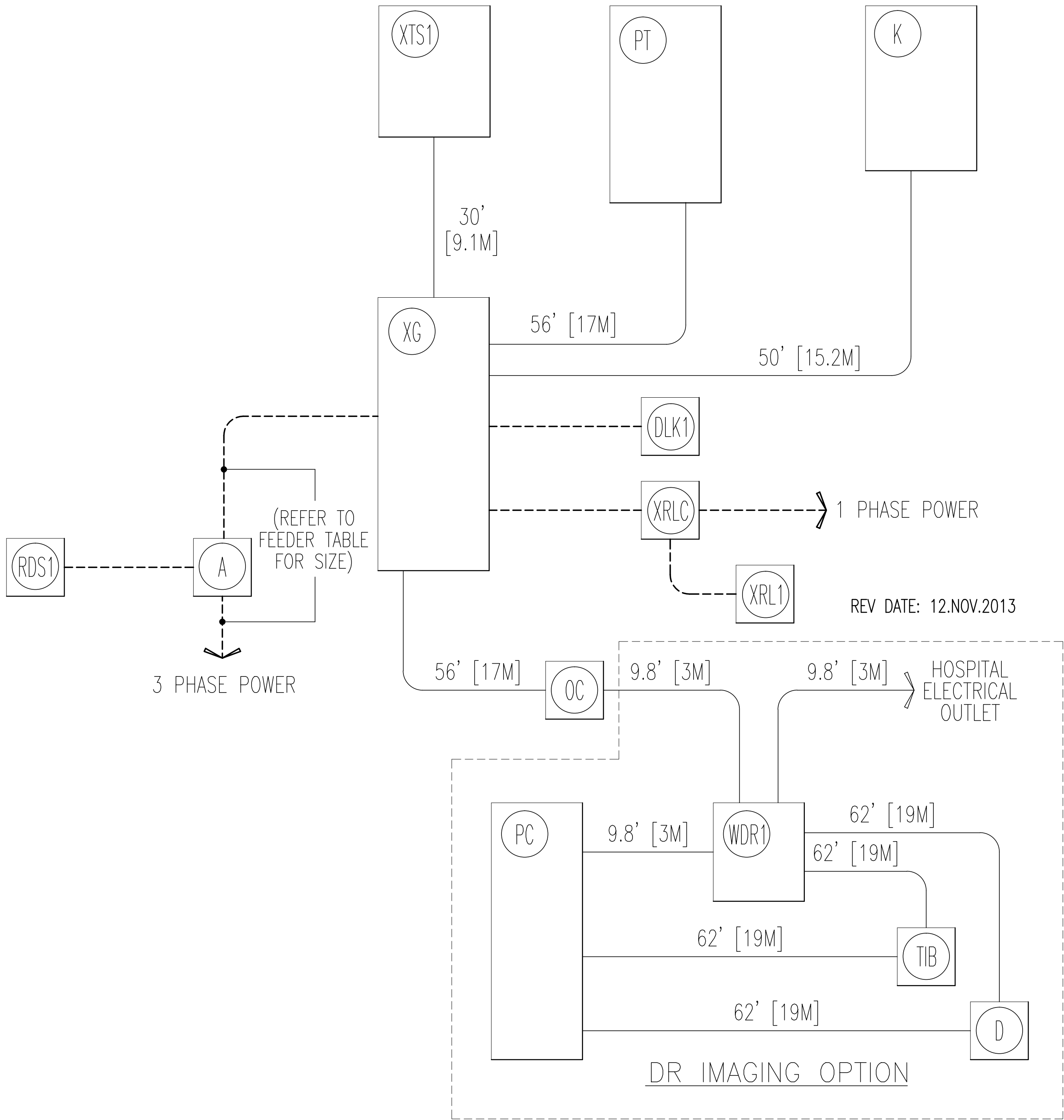
PROJECT	REVISION
142821	02
DATE:	03.Sep.14
DRAWN BY:	RET
CHECKED BY:	JDR
GON NO:	4185846
GON DT:	27.Aug.14

REVISION HISTORY:	
1	RET - 17.Feb.15
2	CHECKED BY: REK
	LLM - 27.Feb.15
	CHECKED BY: REK

SHEET  
E1



INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

PROTEUS XR/a 80kW REV. DATE: 21.JUN.14

VOLTAGE PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.  
RANGE OF LINE VOLTAGES  
NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A  
ALLOWABLE  
INPUT  
VOLTAGES/  
CURRENT  
DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM STANDARD OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342-418	190	7	100-A
400	360-440	181	6.6	90-A
415	373-456	174	6.4	90-A
440	396-484	164	6	90-A
460	414-506	157	5.8	80-A
480	432-528	151	5.5	80-A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE LOW LINE CONDITIONS MAY INHIBIT SOME HIGH KVP TECHNIQUES.  
THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS  
BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE-BALANCE. PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT  
OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE  
TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED  
LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND  
FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND CONTINUOUS POWER DEMAND =4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B  
MAXIMUM  
MOMENTARY  
POWER  
DEMAND.

DEMAND	PROTEUS/ DEFINIUM
kVa * POWER FACTOR AT	125 0.73
mA kVp	630 80

\* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM.  
LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND  
MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRI-BUTION TRANS-FORMER FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE  
IS 150 KVA. SYNTHESIZED POWER FEED IS NOT ACCEPTABLE

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS.  
ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 5: CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRIBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
- NOTE 6: GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
- NOTE 7: **ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).**
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.
- NOTE 12: GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED



GE Healthcare

Healthcare Project Implementation - Design Center

Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL SPECIFICATIONS

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS. ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION CONSTRUCTION PRACTICES, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ROOM NO. 1383

JESSE BROWN  
VA MEDICAL CENTER  
CHICAGO, ILLINOIS

PROJECT	REVISION
142821	02
DATE:	03.Sep.14
DRAWN BY:	RET
CHECKED BY:	JDR
GON NO:	4185846
GON DT:	27.Aug.14

REVISION HISTORY:	
1	RET - 17.Feb.15
	CHECKED BY: REK
	LLM - 27.Feb.15
	CHECKED BY: REK

SHEET

E2

472-303

ELECTRICAL DETAIL  
BOX WITH DIVIDER AND SPLIT COVERPLATE (TYPICAL)

ELEC-79  
REV. DATE: 04/06/04

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
VERTICAL WALL DUCT (TYPICAL)

ELEC-6  
REV. DATE: 03/19/04

DUCT WIDTH	MINIMUM DIVIDERS REQUIRED
24" [610mm]	2
18" [457mm]	2
10" [254mm]	2
6" [152mm]	1
4" [102mm]	1

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
BOX WITH COVERPLATE (TYPICAL)

ELEC-8  
REV. DATE: 09/30/94

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
BOX WITH COVERPLATE AND NETWORK JACK

ELEC-83  
REV. DATE: 10/06/98

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
NETWORK CONNECTION (TYPICAL)

ELEC-84  
REV. DATE: 03/06/04

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
CONDUITS THRU-FLOOR (TYPICAL)

ELEC-9  
REV. DATE: 08/08/94

DETAIL NOT TO SCALE

ELEC-10  
REV. DATE: 01/25/07

1 DETAIL NO LONGER NEEDED

ELECTRICAL DETAIL  
WARNING LIGHT DIAGRAM

ELEC-72  
REV. DATE: 05/14/09

UNLESS SPECIFIED ON SHEET A1 AS BEING INCLUDED ON EQUIPMENT ORDER, ALL ITEMS ILLUSTRATED ARE TO BE FURNISHED AND INSTALLED BY CUSTOMER'S CONTRACTOR

DRAWING NOT TO SCALE

ELECTRICAL DETAIL  
EMERGENCY OFF BUTTON

ELEC-16  
REV. DATE: 05/14/09

DETAIL NOT TO SCALE

ELECTRICAL DETAIL  
X-RAY MAIN DISCONNECT PANEL

ELEC-15  
REV. DATE: 01/25/07

DETAIL NOT TO SCALE

GE Healthcare

Healthcare Project Implementation – Design Center Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL DETAILS

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS. ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO THE LATEST AVAILABLE INFORMATION. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ROOM NO. 1383

JESSE BROWN

VA MEDICAL CENTER

CHICAGO, ILLINOIS

PROJECT

REVISION

142821

02

DATE: 03.Sep.14

DRAWN BY: RET

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GON NO: 4185846

GON DT: 27.Aug.14

REVISION HISTORY:

1 RET – 17.Feb.15

CHECKED BY: REK

LLM – 27.Feb.15

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SHEET

E3

## REV. DATE: 18.Apr.11



## REV. DATE: 03/07/11



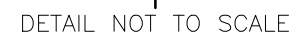
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## REV. DATE: 03/30/11



## REV. DATE: 03/31/11



## REV. DATE: 03/31/11



## REV. DATE: 03/30/11



## REV. DATE: 03/11/11



## REV. DATE: 10/13/06



## REV. DATE: 18.Apr.11



THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED



Healthcare Project Implementation – Design Center  
Milwaukee, Wisconsin

MODALITY TYPE: PROTEUS XR/a

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES. HOWEVER, THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:

DOOM VIO 1707

CHICAGO, ILLINOIS

DATE: 03.Sep.1  
DRAWN BY: RE  
CHECKED BY: JD  
GON NO: 418584  
GON DT: 27.Aug.1

CHECKED BY: REK  
LLM - 27.Feb.15  
CHECKED BY: REK

SHIFT

D 1